Send BZs to: SAFE-Mech@navy.

BZ of the Quarter

AMAA Ryan Marshall
HS-7

While doing a turnaround inspection on aircraft 617, airman apprentice Marshall determined one of the tail-rotor blades felt loose, compared to the others. He did a "teeter test," which checks for spar integrity and a delaminating tail rotor. He then found a few cracks near the blade cuff and notified QA. After removing the outboard retention plate, a QAR found the composite fiber layers of the blade spar had started to separate from each other, causing the tail rotor spar to crack along the retention plate. Had the delamination and cracks gone unnoticed, the tail-rotor blade likely would have failed during the next flight.

Cpl. Sophia Reiser
HMM-365

On a safe-for-flight inspection on a CH-46E, Cpl. Reiser noticed the lord mounts on the synchronization shaft were pushed too far forward. A closer look revealed the inner race for one of the synchronizing drive-shaft bearings was missing. She immediately notified a CDI and QA, who verified the inner race was missing.

An analyst at the Naval Safety Center said the missing inner race might have caused catastrophic failure of the synchronization shaft in flight, resulting in the loss of the aircraft and the lives of the crew.

AMT2 Michael Gustaveson
CGAS Kodiak, Alaska

During a recent search-and-rescue (SAR) case to Adak, Alaska, Petty Officer Gustaveson was doing a thru-flight inspection on a U.S. Coast Guard MH-60J helicopter CGNR 6035. He suddenly noticed the yellow main-rotor-blade damper was installed incorrectly.

Petty Officer Gustaveson's attention to detail prevented a premature failure of a dynamic component and prevented a potential aircraft mishap.

AM2 Dustin Maxey
HSL-42

Following a night of flying aboard USS *Vicksburg* (CG-69), Petty Officer Maxey found a cracked piston on the YAW boost-servo assembly of Proud Warrior 431. After discovering the problem on an early morning daily-and-turnaround inspection, he immediately notified his supervisor and maintenance control.

Petty Officer Maxey's keen attention to detail, quick action, and thorough knowledge of plane-captain procedures prevented a potentially catastrophic chain of events.

AM2 Mark Thomas
HSL-44

During a routine inspection of Magnum 446, Petty Officer Thomas noticed the sealant deteriorating on the No. 1 input module's mounting face to the main transmission. A closer look revealed that the input module was corroded severely at critical mounting points.

Had Petty Officer Thomas not found this problem, a catastrophic main-transmission failure would have been likely.

AE2 Daniel Coffey
HSL-42 Det. 1

During a routine weekly aircraft wash aboard USS *Klakring* (FFG-42), Petty Officer Coffey found a crack in one of the main-rotor blades of his detachment's only SH-60B. Ultimately, the cracked rotor blade was not safe for flight and could have resulted in catastrophic failure had it gone undetected.

Petty Officer Coffey's critical eye led to a timely repair, returning their sole aircraft to full mission-capable status.

AT2 Tyler Vidas
HSL-42

On a routine FOD inspection on Proud Warrior 431, Petty Officer Vidas found a disconnected wire for the directional-control valve, which is used to position the fire bottles in the SH60-B's fire-extinguishing system. Had the aircraft been flown in this condition, the main and reserve fire bottles for all engines would have been inoperable in case of an emergency. His quick actions prevented further problems, and the gripe was fixed.

AM3 Trevor Shivdayal
HSL-37 Det. 2

Working on an SH-60B aboard USS *Chosin* (CG 65), Petty Officer Shivdayal located a pinhole leak in a hydraulic-pressure line for the No. 1 tail-rotor servo. Due to the awkward location and size of the hole, the leak would have gone unnoticed until the aircraft returned to flight.

Petty Officer Shivdayal's keen attention-to-detail and meticulous troubleshooting technique prevented a partial hydraulic-system failure and in-flight emergency.

AM2 Phillip Boykin
VAW-117

Petty Officer Boykin was doing a high-power turn of aircraft 603 in the aft hummer hole aboard the USS *Nimitz* (CVN-68). During the start of the port engine, he felt the aircraft shift in an unexpected manner. The aircraft's wings had begun to spread unexpectedly. He quickly cycled the wing-spread lever from folded to spread and back to folded while taking the condition lever to ground stop. This action stopped the wings and caused them to refold, preventing damage to 603 and the surrounding aircraft and equipment.

AN Chad Helstrom
HSL-51

While doing corrosion work on an SH-60B, Airman Helstrom found the hydraulic unions for the first- and second-stage tail-rotor servos were not seated fully. This vital assembly in the SH-60B controls the aircraft's heading through the tail rotor. Further inspection revealed that the jam nuts on the backside of the pylon had backed off. His good troubleshooting effort during a mundane task prevented a serious risk to flight safety.

AM2(AW) Philip Sadler
HSL-37 Det. 2

During a 7/56-day inspection on an SH-60B aboard USS *Reuben James* (FFG-57), Petty Officer Sadler prevented a possible mishap when he noticed serious exfoliation corrosion on the hinge bracket of the APU door. Had it gone unnoticed, the hinge likely would have failed, causing the APU door to depart the aircraft. He immediately downed the aircraft and corrected the problem, returning the aircraft to flight status.

AO2 Alex Ramosruano
HSL-37

During a plane captain preflight inspection of the engine compartment of an SH-60B, Petty Officer Ramosruano noticed a missing torque stripe on the B-nut for the load-demand-spindle (LDS) cable. A closer look at the B-nut showed the LDS cable was not secured correctly to the hydro-mechanical control unit (HMU).

Petty Officer Ramosruano immediately notified maintenance control and wrote a downing discrepancy. His ability to recognize and defuse a potentially dangerous situation prevented an in-flight emergency.

AD3 Brian Reynolds
HSL-51

Petty Officer Reynolds assisted on a 7/28-day special inspection on Walord 701. He found a 4-inch crack on the shear decking below the No. 2 engine intake and immediately reported it to a QA. The crack turned out to be a P&E repair. His keen eye and quick action prevented a possible flight mishap.

AD2 Chris Davis and AD3 Marvin Freshwater VFA-102

AD2 Chris Davis and AD3 Marvin Freshwater had been troubleshooting an over-fueling gripe on Diamondback 100 for days. After removing and replacing the wing high- and low-level pilot valves, fuel continued spilling out the vents. Undeterred, they suspected a failure of the high-level pilot valve in the No. 1 tank. When they opened that tank, they found the top of the fuel cell had collapsed. A closer look at the bladder cell showed several rub marks and damage beyond usable limits to the nylon barrier. They ultimately found a problem with the lacing was the culprit behind the collapse, revealing a flaw in the fuel cell and saving hundreds of man-hours in future troubleshooting.

AD1 Joshua Sullivan VPU-2

Petty Officer Sullivan was standing starboard wing observer for a P-3 on the tarmac. After the No. 4 engine was started, AD1 Sullivan noticed the No. 4 propeller's servicing door was not secured. Recognizing an unsafe situation and using sound principles of ground-resource management, he signaled the lineman to instruct the aircrew to shut down engines. Upon closer inspection, he discovered the door was beyond repair and worked quickly to replace the top after-body. The aircraft then was able to safely execute a successful combat mission.

AM1 Matthew Allen VPU-2

While doing a routine daily inspection on a P-3 aircraft, Petty Officer Allen noticed what appeared to be a small crack on the forward skin of the starboard aileron's trim tab. After a closer look, he found that the attaching hardware for the connecting road to the inboard trim tab was missing, and the remaining hardware in the outboard connecting rod was worn. The missing hardware had caused the rod to rub through the trim-tab skin. The associated linkages were damaged beyond repair.

Petty Officer Allen's critical safety eye discovered a discrepancy that was not easily seen and could have caused a flight-control failure, leading to the loss of aircraft and crew.

AE2(AW) James Beach VR-56

On a look-phase inspection on a C-9B, Petty Officer Beach noticed the port and starboard wingtip-lighting assemblies looked like they had melted. From experience, he knew this problem might be the result of a lightning hit. During the subsequent conditional inspection, he also found a large, burned-out hole on the elevator control tab, confirming a lightning strike.

Petty Officer Beach's quick action allowed both strobe assemblies and the elevator control tab to be replaced, quickly returning the aircraft to service.